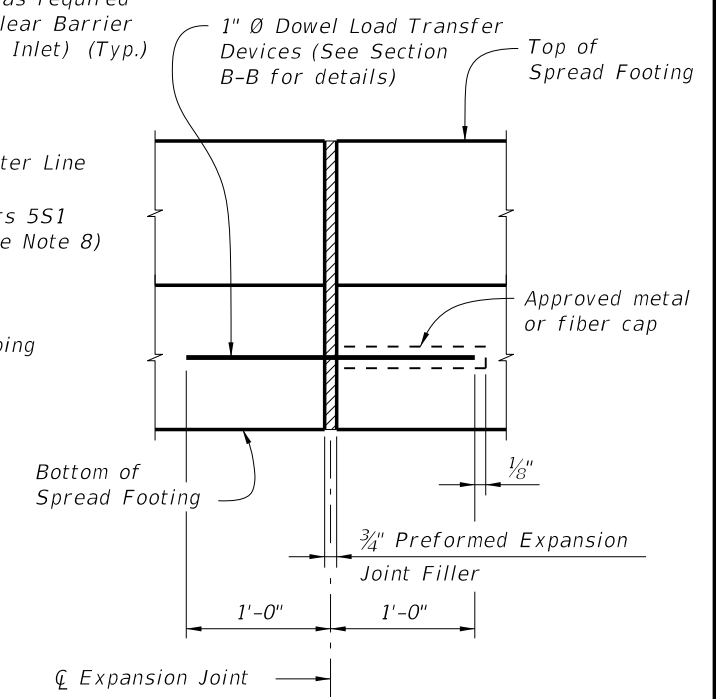
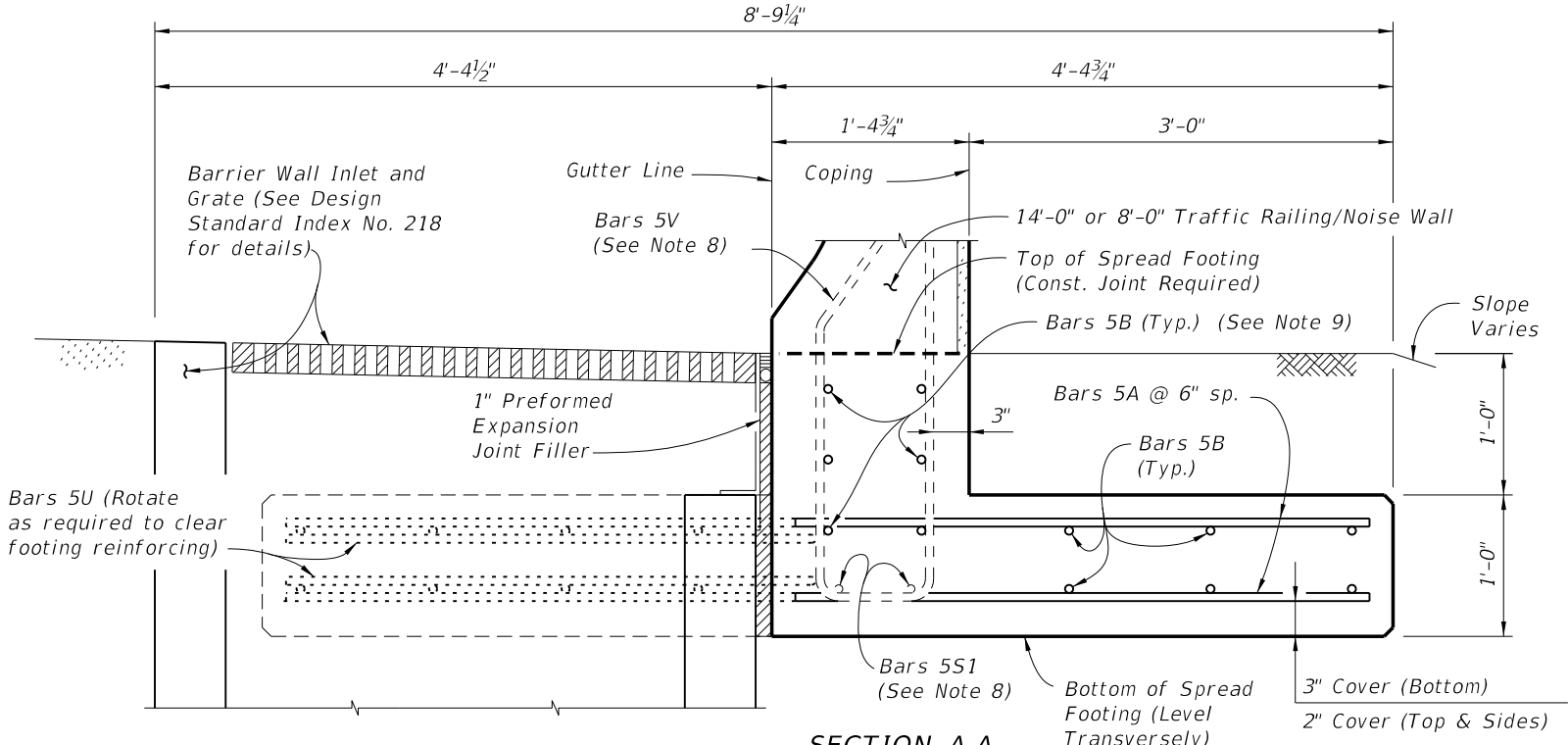


PLAN
SPREAD FOOTING ADJACENT TO SKEWED APPROACH SLAB AND WITH BARRIER WALL INLET



EXPANSION JOINT DETAIL
 (Spread Footing expansion joints are required at 3/4" open joints in Traffic Railing/Noise Wall)



SECTION A-A
SECTION THRU SPREAD FOOTING AND BARRIER WALL INLET
 (Bars 5P, 5R and 5S1 in Traffic Railing/Noise Wall not shown for clarity)

- NOTES**
- CONSTRUCTION REQUIREMENTS:** Construct the Spread Footing level transversely and expansion joints plumb; do not construct the spread footing perpendicular to the roadway surface. Slip forming is not permitted.
 - CONCRETE:** Use Class II concrete for slightly aggressive environments. Use Class IV concrete for moderately or extremely aggressive environments. Concrete will be in accordance with Specification Section 346.
 - DOWELS:** Dowel Load Transfer Devices will be ASTM A 36 smooth round bar and hot-dip galvanized in accordance with Specification Section 962. Install Dowel Load Transfer Devices in accordance with Specification Section 350.
 - Construct 3/4" Expansion Joints plumb and perpendicular or radial to Gutter Line. Provide at 90'-0" maximum intervals as shown.
 - Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 932.
 - Construct 1/2" V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between 3/4" Expansion Joints and/or Begin or End Spread Footing. V-Groove locations are to coincide with V-Groove locations in the Railing/Noise Wall.
 - FILL REQUIREMENTS:** Shoulder or Roadway Pavement or Fill is required on top (1'-0" minimum depth) for the entire length of the spread footing on both sides of the Railing/Noise Wall. See Section B-B for details.
 - See Index No. 5210 for Bars 5V and 5S1.
 - Place 6 ~ Bars 5B inside Stirrup Bars 5V as shown.
 - Spacing shown is along the Gutter Line.
 - Work this Standard Drawing with one or both of the following:
 - Index No. 5210 - Traffic Railing/Noise Wall (8'-0").
 - Index No. 5211 - Traffic Railing/Noise Wall (14'-0").

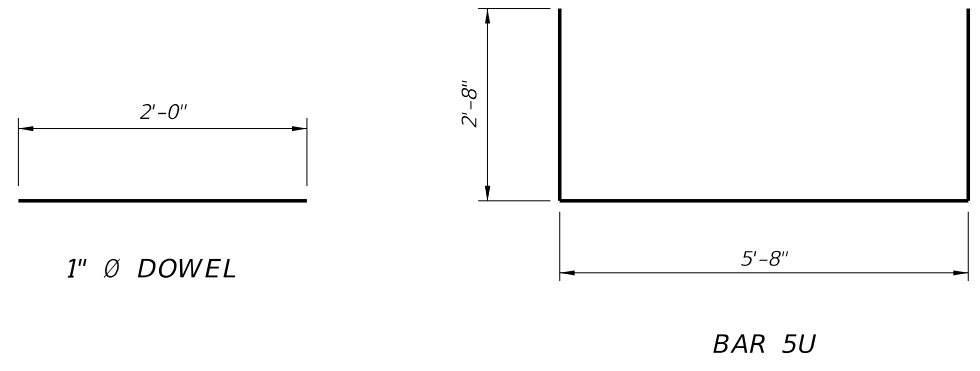
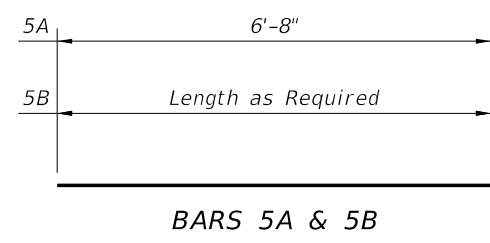
CROSS REFERENCE:
 For Section B-B and Detail "A", see Sheet No. 2.

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LAST REVISION 07/01/13	DESCRIPTION:	 2015 DESIGN STANDARDS	TRAFFIC RAILING/NOISE WALL T-SHAPED SPREAD FOOTING	INDEX NO. 5213	SHEET NO. 1 of 2
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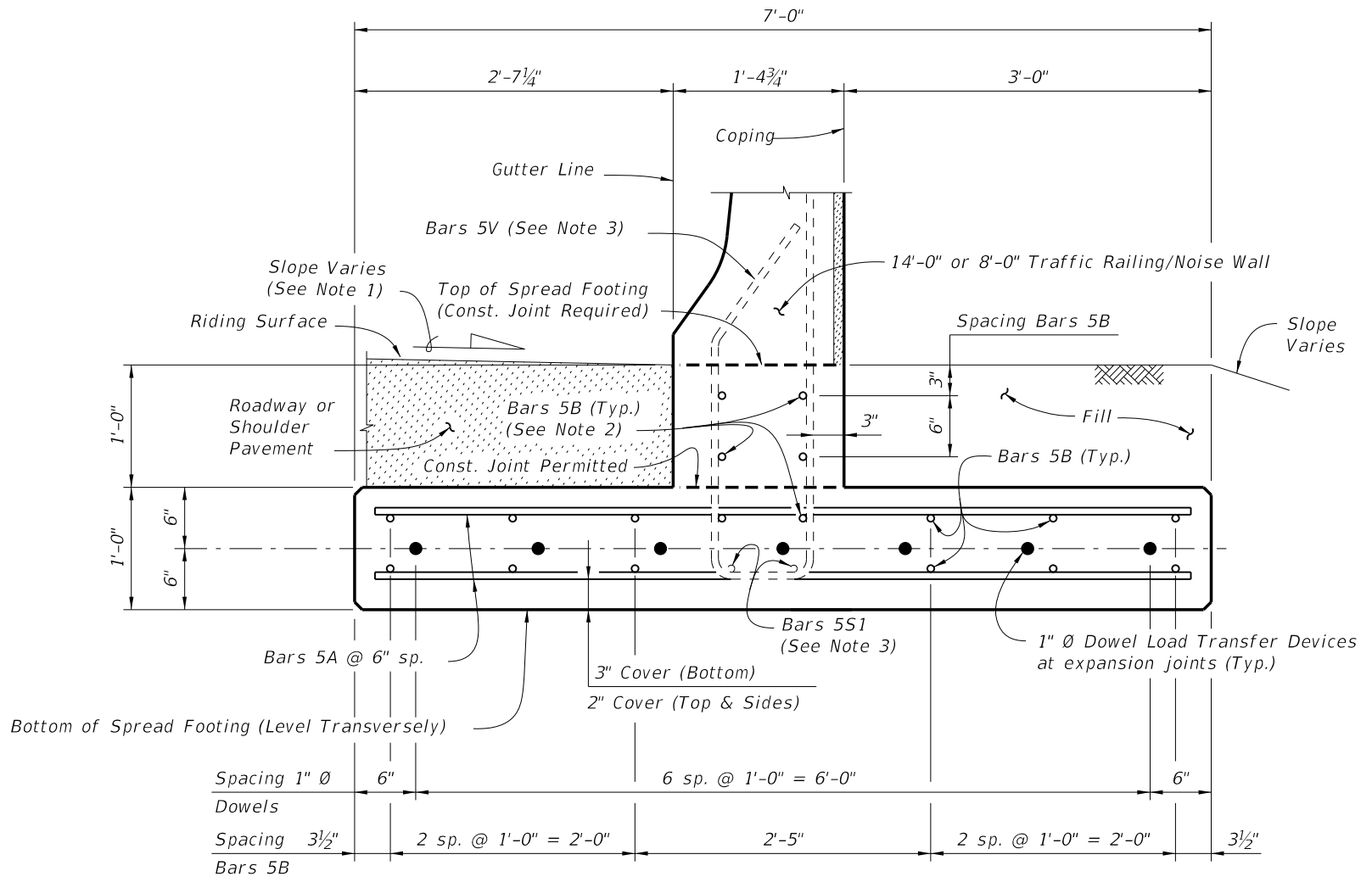
REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
A	5	6'-8"
B	5	AS REQD.
U	5	11'-0"
DOWEL	1" Ø Smooth Bar	2'-0"



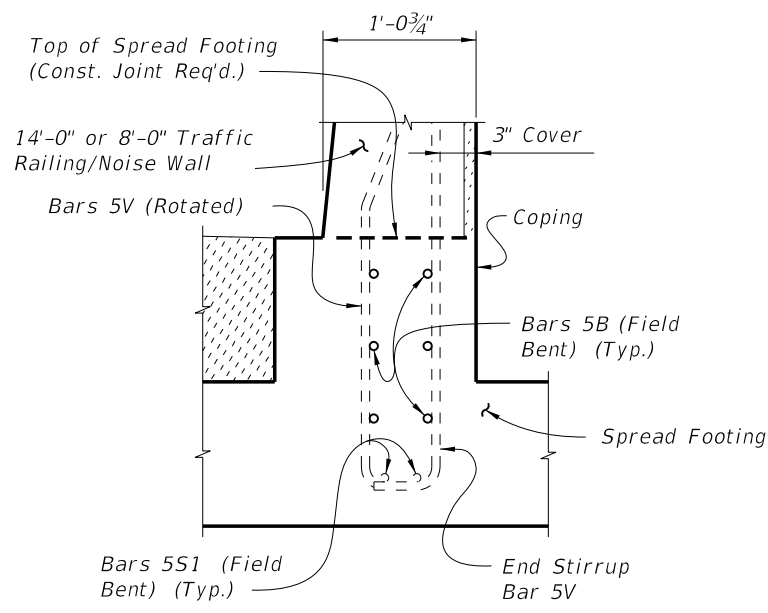
REINFORCING STEEL NOTES:

1. All bar dimensions in the bending diagrams are out to out.
2. All reinforcing steel at the open joints will have a 2" minimum cover.
3. Lap splices for Bars 5B will be a minimum of 2'-2".
4. The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.



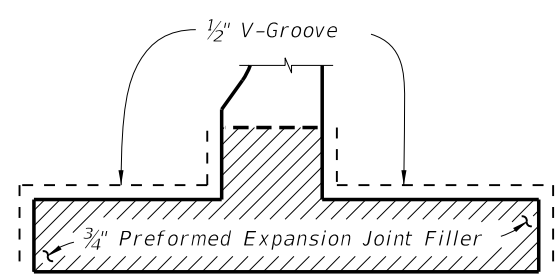
SECTION B-B
TYPICAL SECTION THRU SPREAD FOOTING
(Bars 5P, 5R and 5S1 in Traffic Railing/Noise Wall not shown for clarity)

- NOTES:
1. Match Cross Slope of Travel Lane or Shoulder.
 2. Place 6 ~ Bars 5B inside Stirrup Bars 5V as shown.
 3. See Index No. 5210 for Bars 5V and Bars 5S1.



PARTIAL END VIEW OF RAILING END TRANSITION FOR GUARDRAIL ATTACHMENT
(Showing Bars 5V, Bars 5S1 and Bars 5B inside of Stirrup Bars 5V)

NOTE: See Index No. 5210, Detail "A" for details.



DETAIL "A"
(Showing Locations of 1/2" V-Grooves and 3/4" Preformed Expansion Joint Filler)

ESTIMATED T-SHAPED SPREAD FOOTING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete (Footing)	CY/FT	0.311
Reinforcing Steel (Typical)	LB/FT	51.80
Additional Reinf. @ Expansion Joint	LB	37.38

Note: The reinforcing steel quantity accounts for the difference between the shorter Stirrup Bars 5V for junction slabs or bridges and the longer Stirrup Bars 5V for spread footings.

CROSS REFERENCE:
For location of Section B-B, see Sheet 1.

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